

What is claimed is:

[Claim 1] A multiband antenna comprising a dipole radiator that resonates in a lower frequency band,

a stacked dual dipole radiator that resonates in a higher frequency band,
a first transmission line electrically connected to a first feed point on the lower frequency dipole radiator,

a second transmission line electrically connected to a second feed point on the stacked dual dipole radiator, and

an isolation circuit connected between one end of the stacked dual dipole radiator and the lower frequency dipole radiator, wherein the isolation circuit is tuned to block signals in the higher frequency band, whereby to isolate the higher frequency band from the lower frequency band.

[Claim 2] The multiband antenna of claim 1 wherein the stacked dual dipole radiator comprises conductive tubes.

[Claim 3] The multiband antenna of claim 1 wherein the lower frequency dipole radiator and the stacked dual dipole radiator are coaxial.

[Claim 4] The multiband antenna of claim 1 wherein the isolation circuit comprises a capacitor connected in parallel with an inductor, and both are connected in series with another capacitor.

[Claim 5] The multiband antenna of claim 1 wherein the lower frequency band is 30–88 MHz.

[Claim 6] The multiband antenna of claim 1 wherein the higher frequency band is 225–450 MHz.

[Claim 7] The multiband antenna of claim 1 wherein the lower frequency band is 30–88 MHz and the higher frequency band is 225–450 MHz.